

HEREDITY OF FEEBLE-MINDEDNESS.¹

HENRY H. GODDARD, *Vineland, N.J.*

THE admission forms of institutions for the feeble-minded generally have some questions relating to the ancestry of the applicant. Upon examination of those on file at Vineland, N.J., it was felt that the answers were not sufficiently accurate to be valuable. In some cases, at least, parents had stated that which they thought would get the child into the institution.

Recognising the difficulty of preventing these inaccurate statements, it was decided to publish a new form which should be called the "After-admission Blank," containing very careful, detailed questions about the relatives of the child. This form was sent to all parents and physicians, with a little note urging them for the sake of the child to tell all they possibly could about the child's relatives, their condition, any diseases they had had, any habits, such as alcoholism, any insanity or the like which had occurred in the family. It was expected that this would only be preliminary to more detailed and careful work later. We were, however, greatly surprised at the amount of information received, which has since been proved to be generally very accurate. Upon the basis of this information, we prepared charts of the children, which were truly remarkable in what they revealed as to the etiology of feeble-mindedness.

This spurred us on to more careful and detailed work. We were fortunate enough to find some philanthropic people who were glad to furnish the funds necessary to employ two field workers. It was felt that this was very delicate business, but the relation between the superintendent at Vineland and the parents of the children is so intimate and friendly that we have had complete co-operation from the start. The field worker goes out as the superintendent's personal representative with a letter from him recommending her and urging the parents, for the sake of the child, to tell all they possibly can, and to send her on to other relatives or to any one who may be able to give the information, which may be used to help their child, or some one's

¹ Reprinted from Volume I, No. 3, "American Breeders Magazine."

child. The response has been full, free, and hearty. Parents do all in their power to help us get the facts. There is very rarely anything like an attempt to conceal facts that they know. Of course, many of these parents are ignorant, often feeble-minded, and cannot tell all that we should like to know. Nevertheless, by adroit questioning and cross-reference, we have been able to get what we believe to be very accurate data in a very large percentage of our cases.

The charts here presented are typical of about eighty so far completed. The symbols used in the charts are the following. Square indicates male. Circle indicates female. A capital letter indicates disease, habit, or condition, as follows: A, alcoholic (habitual drunkard); B, blind; C, criminal; D, deaf; Dwf, dwarf; E, epileptic; F, feeble-minded, either black letter, or white letter on black ground (the former when sex is unknown); I, insane; M, migraine; N, normal; Sx, grave sexual offender; Sy, syphilitic; T, tuberculous; W, wanderer, tramp, or truant.

Any of these letters may be used with no square or circle when sex is unknown. When even the letter is omitted the vertical line points to the fact that there was an individual of whom nothing is known.

Small black circle indicates miscarriage—time is given (in months) when known; also cause; stillbirth is shown as a miscarriage at nine months; b = born; d = died; m = married; inf = infancy; hand shows which child is in the institution for feeble-minded; illeg = illegitimate; heavy line under any symbol indicates that the person is in some institution at the expense of society.

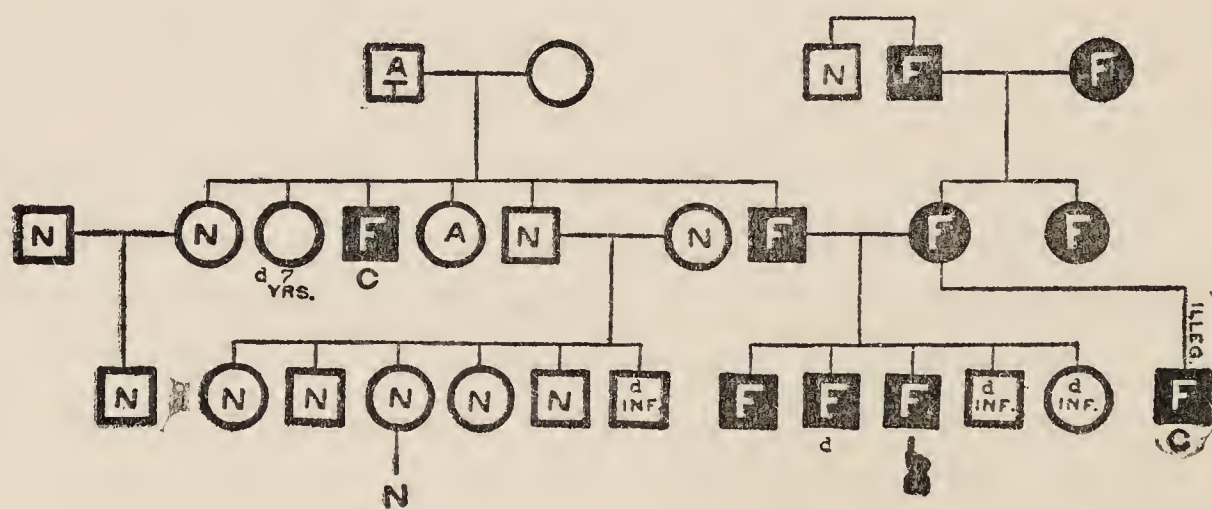


CHART I.

On the lowest line, which represents the brothers and sisters of the child in the institution, the children are indicated in order of birth—the oldest to the left. In other cases the order would be indicated, if known, by numerals placed above the horizontal line.

Chart I shows the maternal grandparents feeble-minded, and they have as usual only feeble-minded offspring—two girls. One of these married a feeble-minded man whose brother was feeble-minded and a criminal, and whose sister was disgracefully alcoholic. However, a normal brother of the husband married a normal woman and had six normal children. The offspring of the feeble-minded woman and this feeble-minded man were three feeble-minded children and two others who died in infancy. An illegitimate child of this woman is feeble-minded and a criminal.

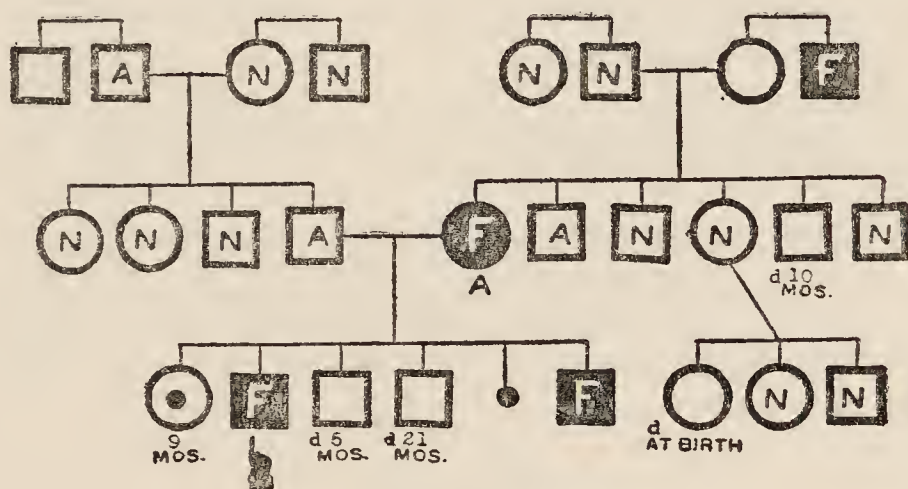


CHART II.

Chart II shows a combination of alcoholism and mental defect in the ancestry of the parents, resulting in alcoholism on the one side and direct feeble-mindedness with alcoholism on the other. The offspring of these two individuals are all defective—one still-born, two that died young, one miscarriage, and two feeble-minded.

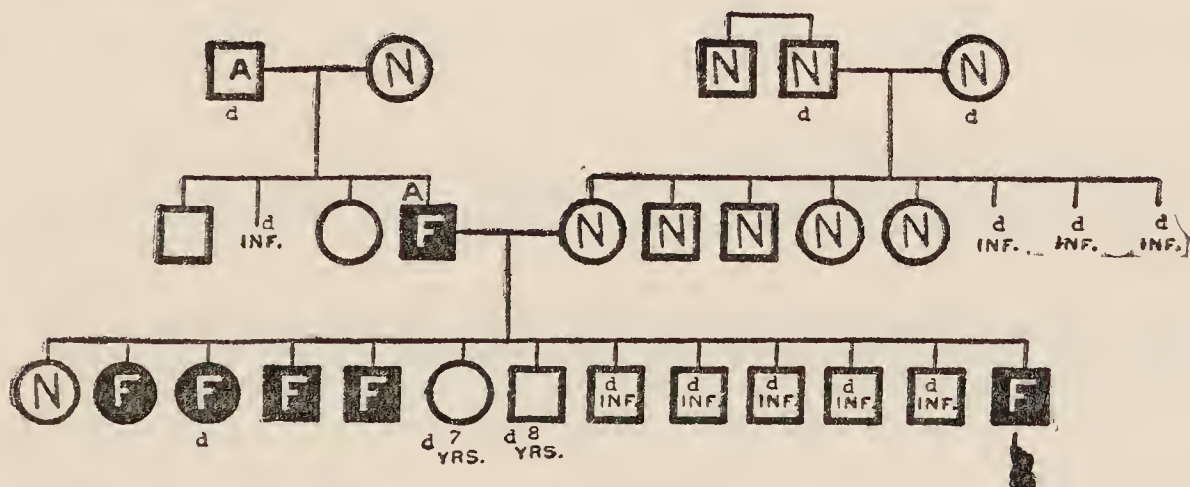


CHART III.

Chart III is instructive, in that it seems to show the effect of a combination of alcoholism and mental defect in the father, when the mother's family is good—herself and sisters being normal. The result of this woman's marriage with a feeble-minded alcoholic man is five feeble-minded children, five that died in infancy, two others that died before their mental condition could be determined, and one normal child. Apparently a clear case of transmission through the father.

Chart IV, also, seems to show the defect coming through the male, the grandfather, a feeble-minded man, marrying a normal woman, the result of this marriage being two feeble-minded

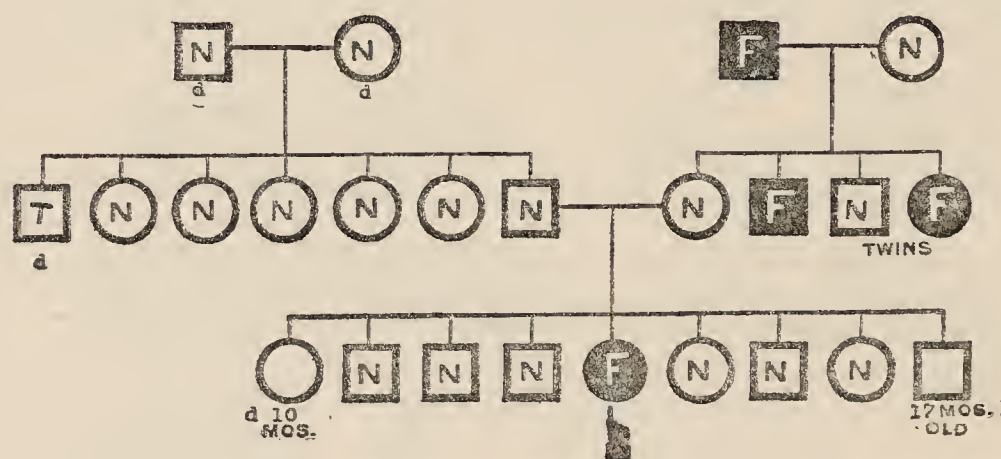


CHART IV.

children and two normal ones. One of these normals married a normal man. They had six normal children, one feeble-minded, one who died in infancy, and one infant still living, but condition unknown.

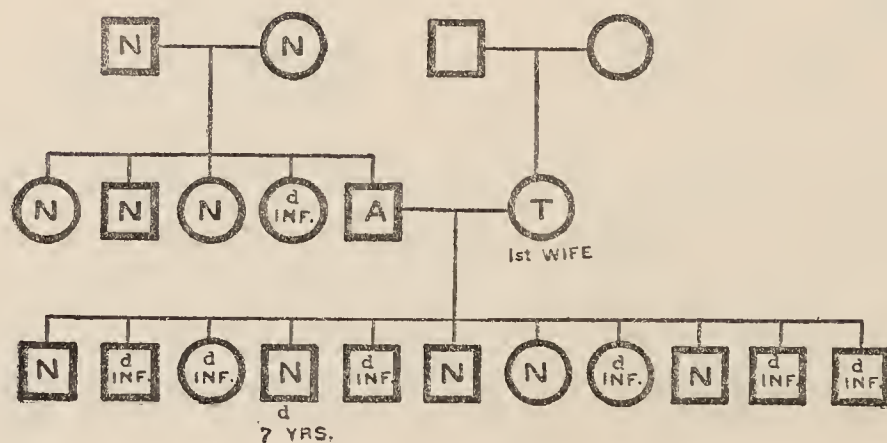


CHART V, A.

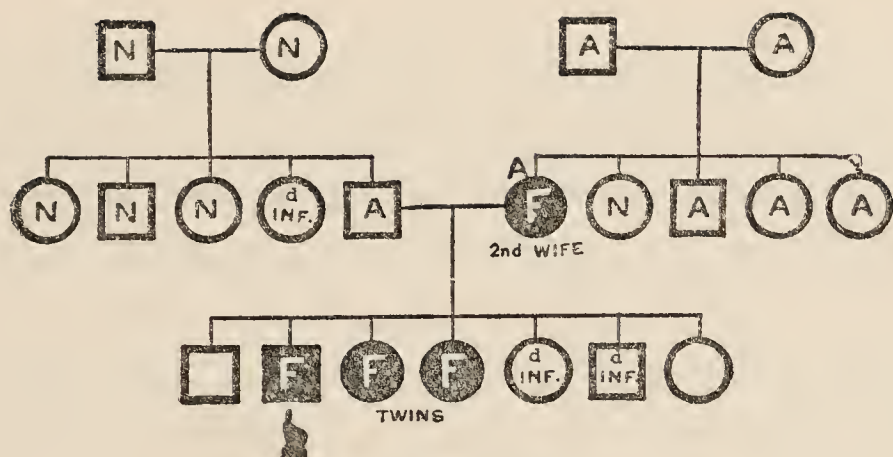


CHART V, B.

Chart V is presented in two parts—A and B. It gives us what may be called a natural experiment of extreme suggestiveness. The father of our child was twice married. He himself is alcoholic, otherwise his family seems to be very good. His first wife was a normal woman, but a victim of tuberculosis. The result of that marriage was eleven children, of whom five are known to be normal, the others died young. This man married for his second wife a woman who was alcoholic and feeble-minded, and who had two sisters, a brother, a father, and a mother that were also alcoholic. The result of this union was seven children—three feeble-minded, two that died young, and two that are as yet unknown. It seems to be fairly clear in this case that the father's alcoholism may have caused the physical weakness that led to so many early deaths in the first family, but the mother's defect has been directly transmitted in the second family, with the result that there are at least three feeble-minded children. We might also add the two others that died young, because, according to the definition of Tredgold, which describes an idiot as "one who cannot avoid ordinary dangers," these children were also defective, since they were both killed at play, apparently not being able to protect themselves in a usually harmless game.

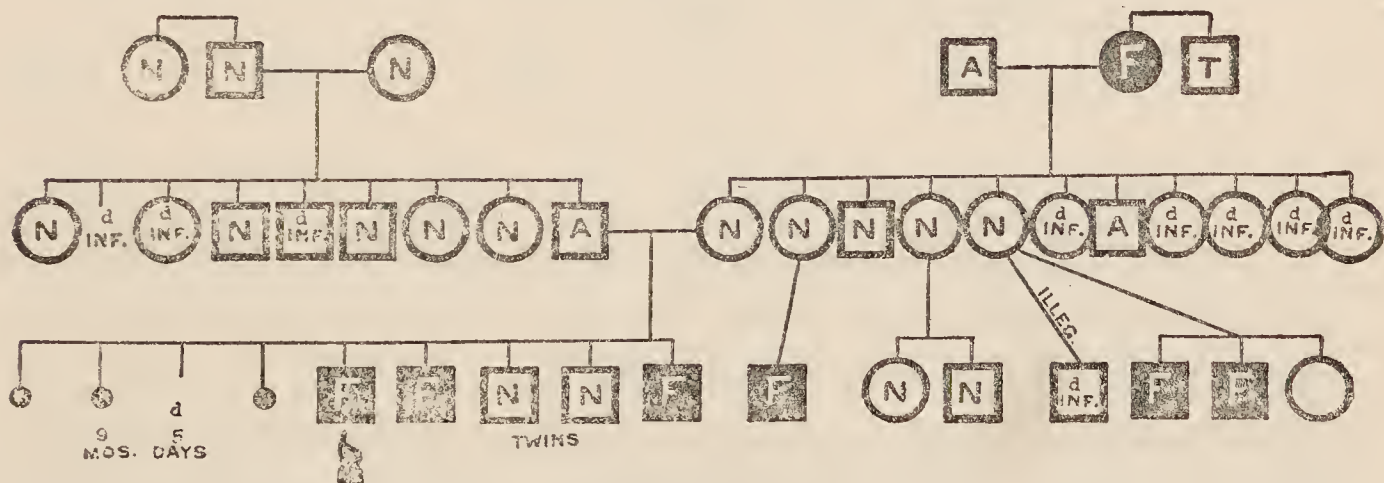


CHART VI.

Chart VI shows a marked instance of the defect skipping a generation. The maternal grandmother was feeble-minded, her husband was alcoholic, but not one of their children was defective. Indeed, four of them were distinctly normal. However, the mother of our child had had St. Vitus dance, a brother is alcoholic, a sister had had St. Vitus dance, and another hysteria, but mentally, they were not defective. The father has no history of mental defect in his family; he himself was alcoholic, but his five brothers and sisters and the parents were normal. Nevertheless the result of the union of these two is three feeble-minded children, one still-born, one that died in five days, two miscarriages, and two normals. If we had this family only, perhaps it would be too hazardous to ascribe these three feeble-minded children to the influence of the feeble-minded grandmother, but when we look at the other children of this grandmother we find that a second daughter has a feeble-minded child, and a third daughter had an illegitimate child that died young, and later two feeble-minded children born in wedlock, and the third child of that woman was defective in eye-sight. The husbands of these women are not known to have been defective. It seems a clear case of the defect passing over from the grandparents to the grandchildren.

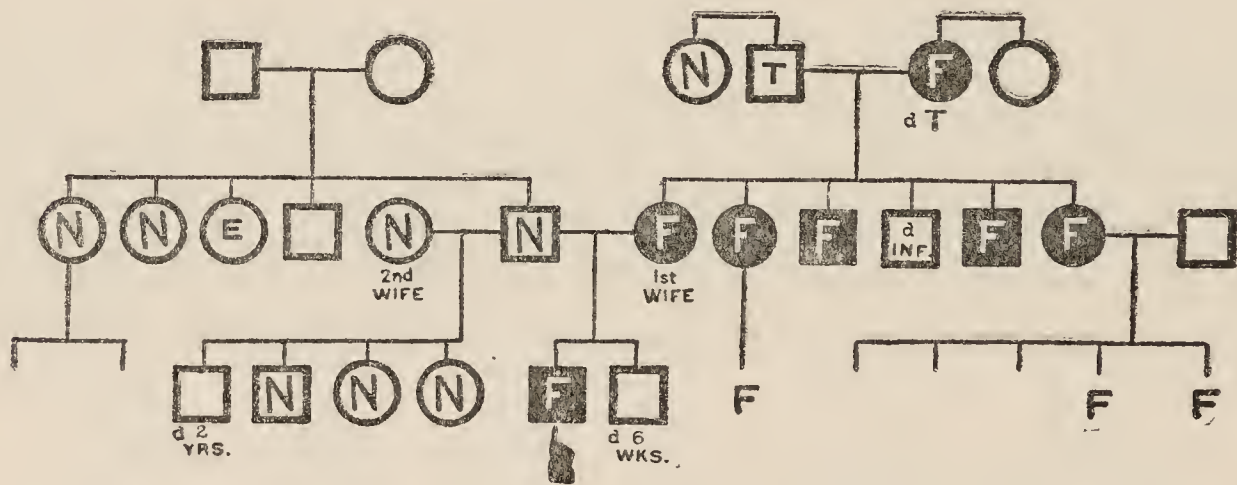


CHART VII.

Chart VII shows the father twice married. His first wife was feeble-minded, and bore him one feeble-minded child and another child that died at six weeks. As will be seen, this wife's family is a bad one, there being five feeble-minded children from a father who was tubercular and a mother who was

tubercular and feeble-minded. Two of the sisters married. One had at least two feeble-minded children, the other had one. Coming back to the father of our child, he married the second time a normal woman who gave birth to three normal children and one who died at two years.

Chart VIII (in two parts) is in some ways the most astonishing one we have. There are in the institution at Vineland five children representing, as we had always supposed, three entirely independent families. We discovered, however, that they all belonged to one stock. In Chart VIII, *A*, the central figure, the alcoholic father of three of the children in the institution, married for his third wife a woman who was a prostitute and a keeper of a house of ill-fame, herself feeble-minded and with five feeble-minded brothers and sisters. One of these sisters is the grandmother represented on Chart VIII, *B*.

On *A* it will be seen that this alcoholic man was four times married. He comes from a good family but was spoiled in his bringing up, became alcoholic and immoral—a degenerate man. His first wife, however, was a normal woman and it is claimed that the two children were normal. For his second wife, he took out of the poorhouse a feeble-minded woman. Her children were: two normal, one that died young, and one feeble-minded. He married the third time. The woman was the prostitute above referred to. She had three illegitimate children, all feeble-

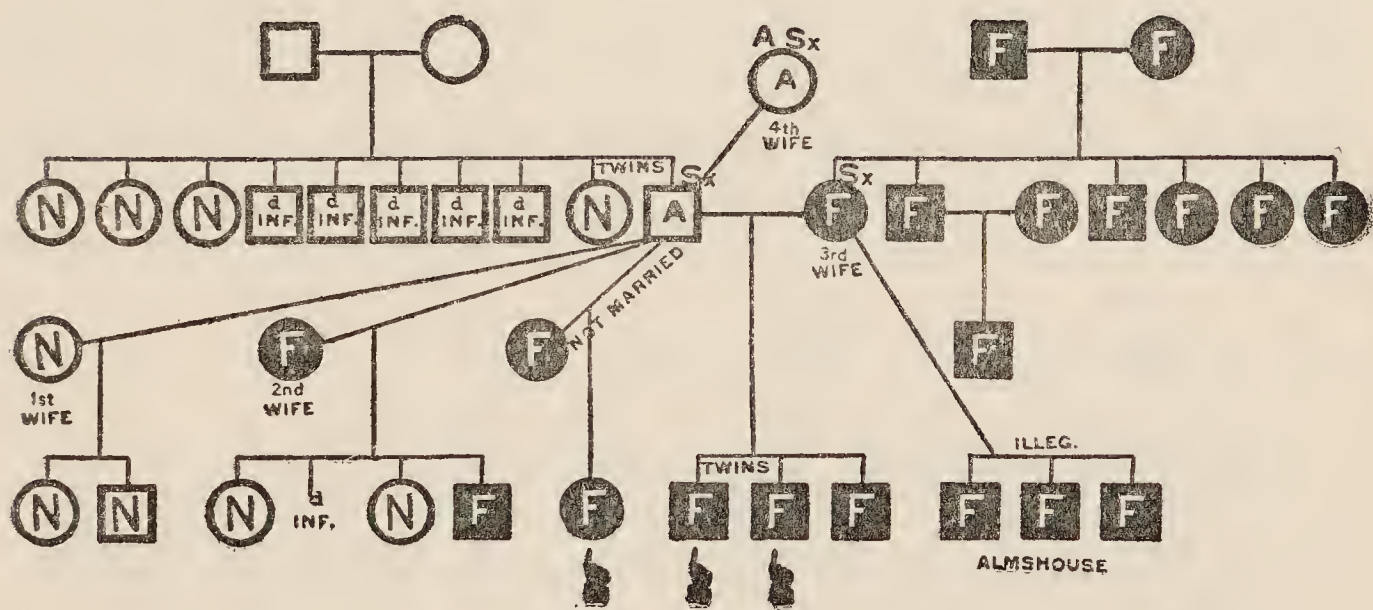


CHART VIII, *A*.

minded. After their marriage, they had three children, all of whom are feeble-minded. Two of these are in this institution.

The father then deserted this woman and married a fourth wife who is alcoholic and a prostitute. Of this union, however, there are no children.

There is, moreover, very strong evidence that he is the father of the third child in this institution by another woman, who is also feeble-minded.

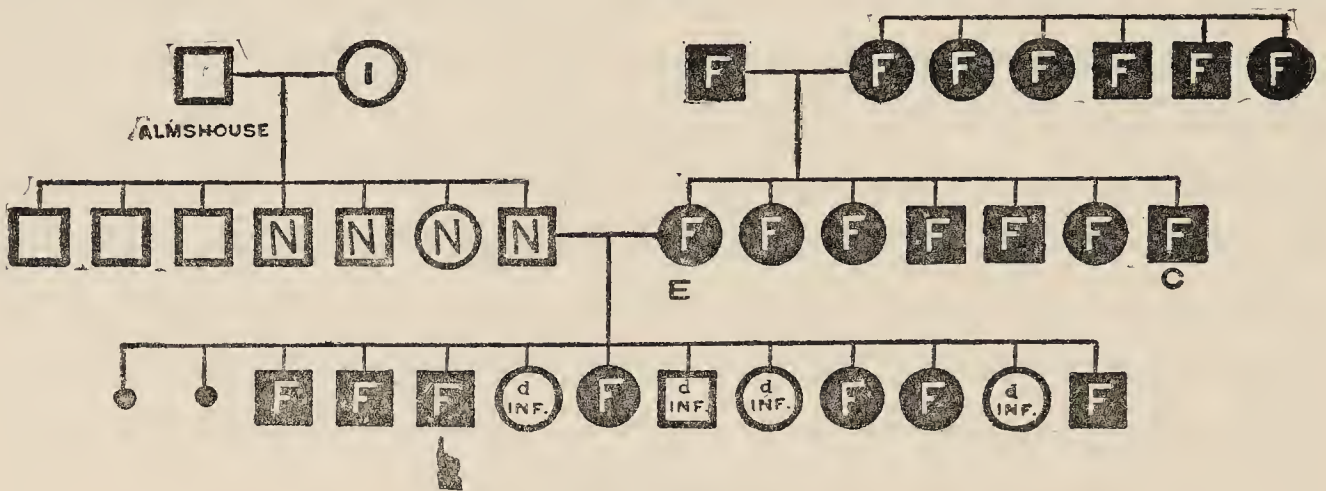


CHART VIII, B.

Chart VIII, B, will be understood if we note that the mother's mother is a sister of the third wife of the much married man of Chart VIII, A. This sister married a feeble-minded man, and the result of that union was seven feeble-minded children, of whom one is a criminal and one an epileptic. Four are married. The feeble-minded epileptic woman married a normal man, who is one of a fairly good family. His mother was insane, the father died in an almshouse; however we find no mental defect. As the result of this marriage, we have seven feeble-minded children, four others that died in infancy, and there were two miscarriages. This is the fourth child of this strain that is in our institution. The fifth one referred to is a half-sister of the other girl referred to on Chart VIII, A.

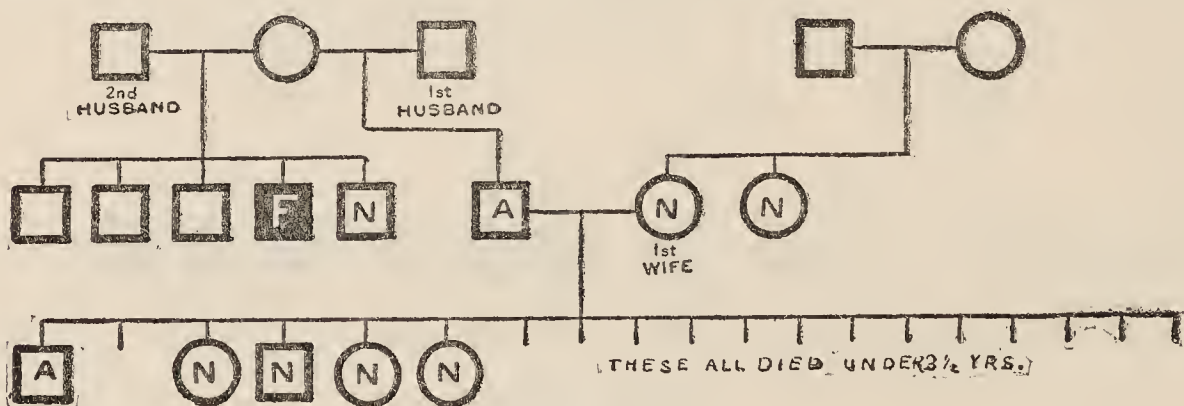


CHART IX, A.

Chart IX (also in two parts) is another one of nature's experiments. The father of the child in this institution, an

alcoholic man, was married twice. His first wife was a normal woman of good family. The result of this union was nineteen children, all born within a period of nineteen years. Thirteen of these children died under three and a half years of age, three

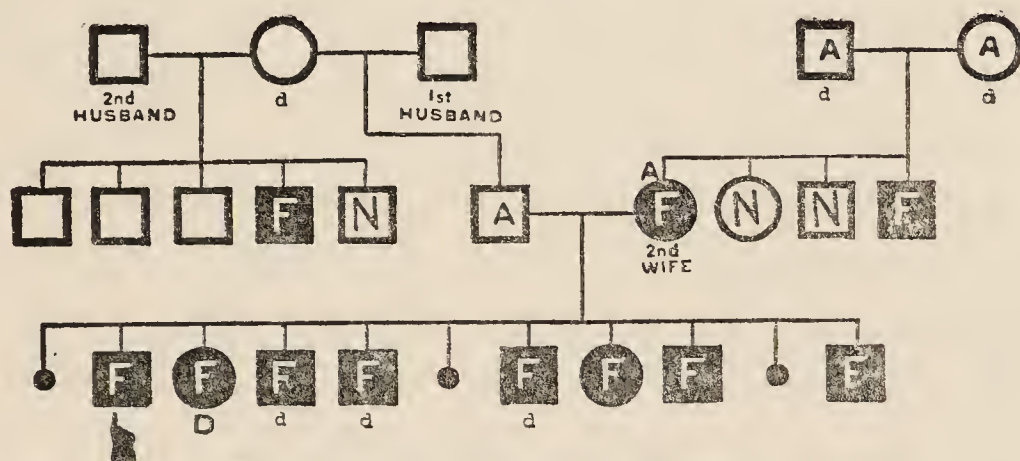


CHART IX, *B.*

are distinctly normal, one neurotic, one alcoholic, and one unknown. This man had a congenital defect in the number of joints in the fingers. However, not one of these nineteen children showed that defect.

This man was married a second time to a feeble-minded and alcoholic woman, the daughter of two alcoholic parents. She has a feeble-minded brother, besides a normal brother and a normal sister. The result of this union was eleven more conceptions, three resulting in miscarriages and the rest mental defectives. Every one of these children shows the father's defective fingers or toes, one of them is also deaf. Apparently the first wife was prepotent and overcame entirely the husband's defect of fingers, and there was no feeble-mindedness. In the second marriage, however, this defective woman was not prepotent in that she allowed him to transmit his physical defect, although she transmitted her mental condition.

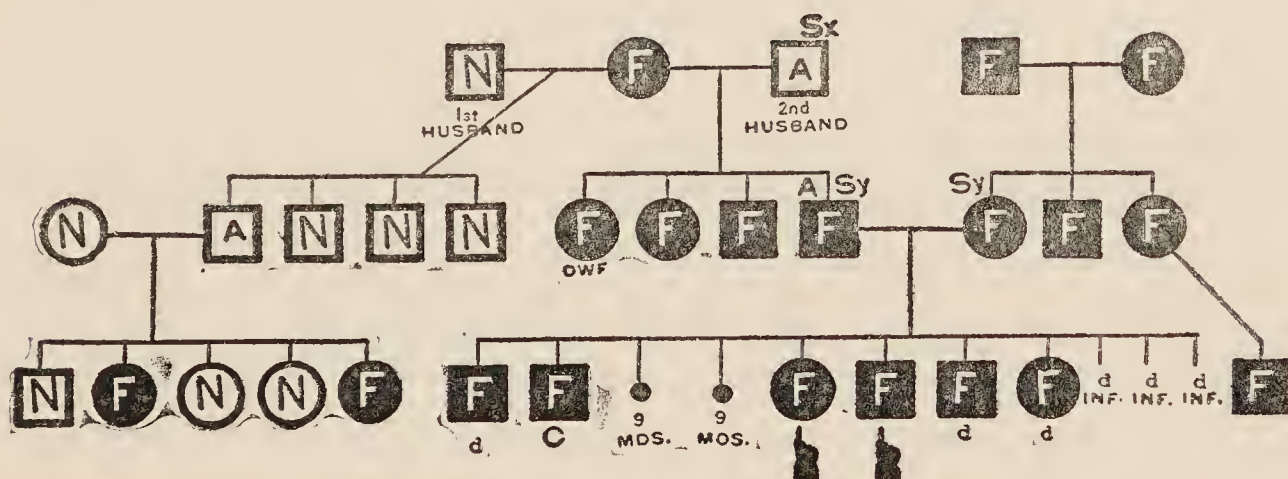


CHART X.

Chart X shows the descendants of a feeble-minded woman who was married twice. Her first husband was normal. There were four normal children, one of whom is alcoholic. This alcoholic son married a normal woman and produced two feeble-minded and three normal children. This is another instance of the defect skipping a generation, being transmitted by the grandmother through the father.

The second marriage of this feeble-minded woman was with an alcoholic and immoral man. The result was four feeble-minded children. One of these became alcoholic and syphilitic and married a feeble-minded woman. She was one of three imbecile children born of two imbecile parents. The result here could, of course, be nothing but defectives. There were two still-born, and three that died in infancy. Six others lived to be determined feeble-minded. One of these was a criminal. Two are in the institution at Vineland. The mother's sister also has a feeble-minded son.

Chart XI also brings together in its two parts (*A* and *B*) two children in the institution that were not previously known to be related. The maternal grandmother in *A* is the maternal grandmother in *B*, being the grandmother of both of these children, as well as of several other defectives. The mother of our child on *A* was an illegitimate daughter of this woman. She was feeble-minded; she married a feeble-minded son of a feeble-minded man. The result was two children that died in infancy, three miscarriages, and two mental defectives. Going back to the grandmother, we find that she married, later, a normal

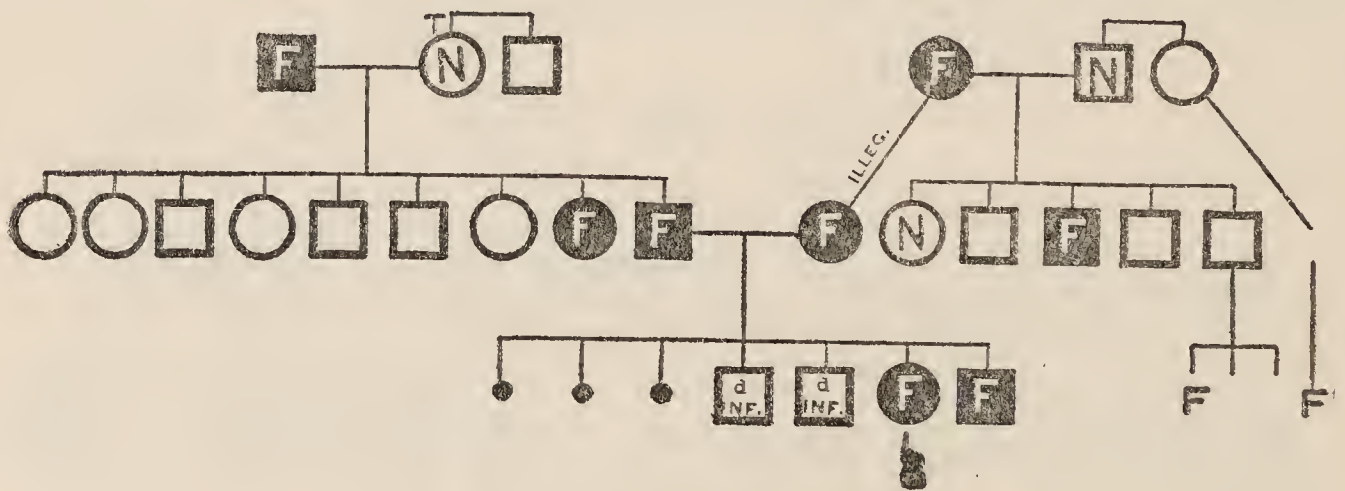


CHART XI, A.

although neurotic man. The result of that union was one feeble-minded, one normal and neurotic, and three that we do not know about.

Chart XI, B, is somewhat complicated, but shows many variations. For example, one of the sons of this same woman had three children, one of whom was feeble-minded. A neurotic daughter married a feeble-minded man who had two feeble-minded brothers and two normal brothers. The result of this

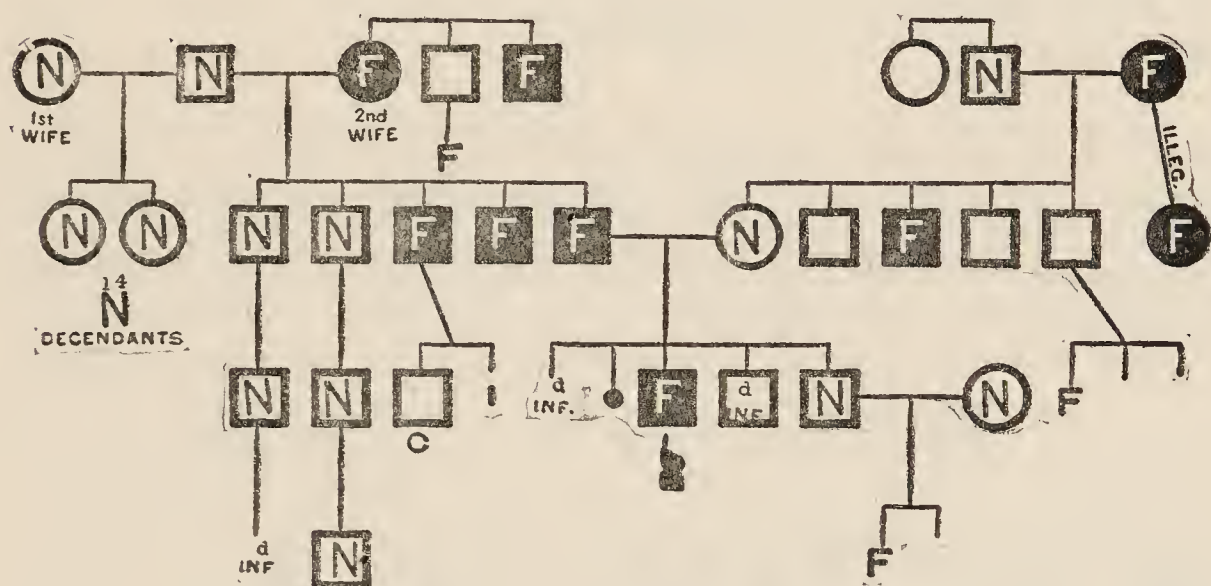


CHART XI, B.

union was the child that is in our institution, two that died young, one miscarriage, and one normal man. This normal man married a normal woman and had two children, one of whom is feeble-minded.

Going back to the father of our child, we find that one of his feeble-minded brothers married a woman who was spoken of as a pervert. They had two children, one of whom was a criminal and the other insane. Two other brothers were normal. One had a normal son and a normal grandson; the other has a normal son, and a grandchild that died in infancy. Going back to the third generation, we find that the grandfather was twice married. He was normal; his first wife was normal. They had four¹ normal children and fourteen descendants, all normal. He married for his second wife the feeble-minded woman who was the mother of the children already referred to. She had a brother who was feeble-minded, and another brother whose mental condition is unknown, but whose child was feeble-minded.

¹ Only two shown on chart.

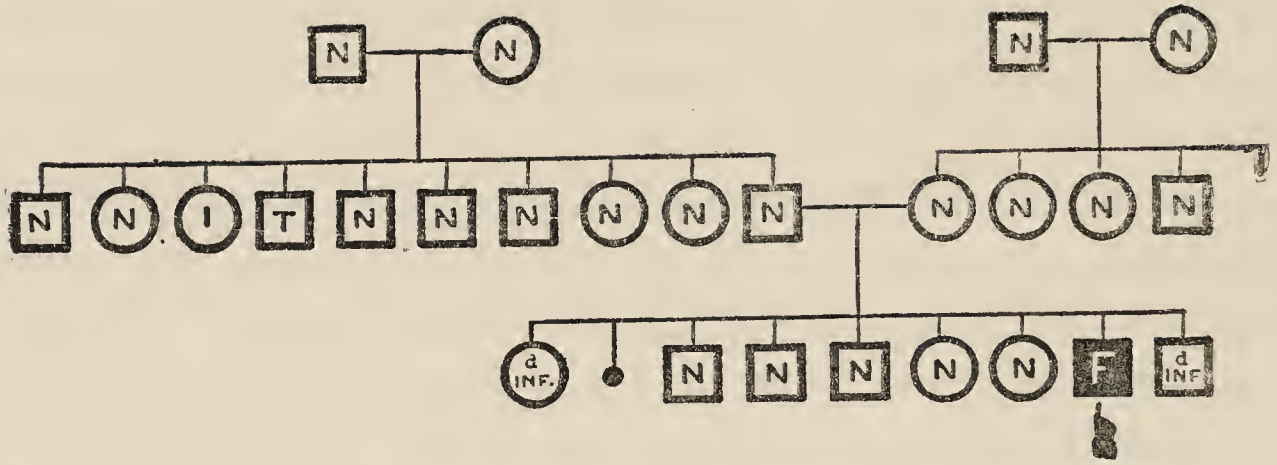


CHART XII.

Chart XII shows a type of imbecility that is clearly not hereditary. It will be seen that all this family on both sides are normal people, with the exception of one woman who is reported

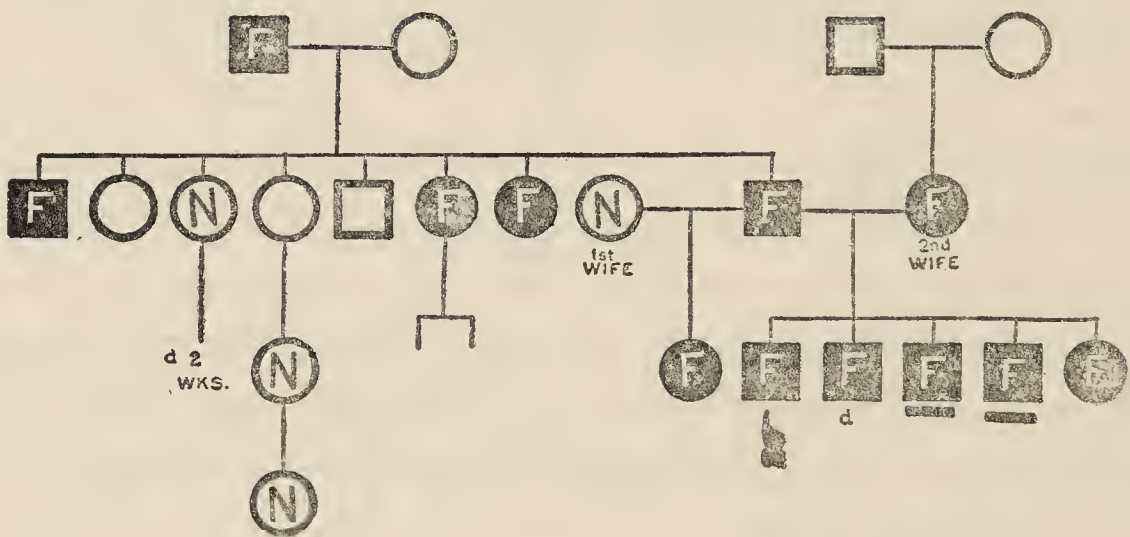


CHART XIII.

as being insane with religious mania. The child in our institution is what is known as the Mongolian type, and we have come to believe that there will be no other mental defectives found in such families. Usually such a child is the last born. In this case, there was one other child later, but he died at the age of ten months. Mongolism is an arrest of development resulting from some cause acting *in utero*, perhaps about the second month.

Chart XIII presents nothing new, but emphasises what we have already seen. Two feeble-minded parents have five feeble-minded children. The paternal grandfather, however, seems to have been the one that transmitted the defect on the father's side.

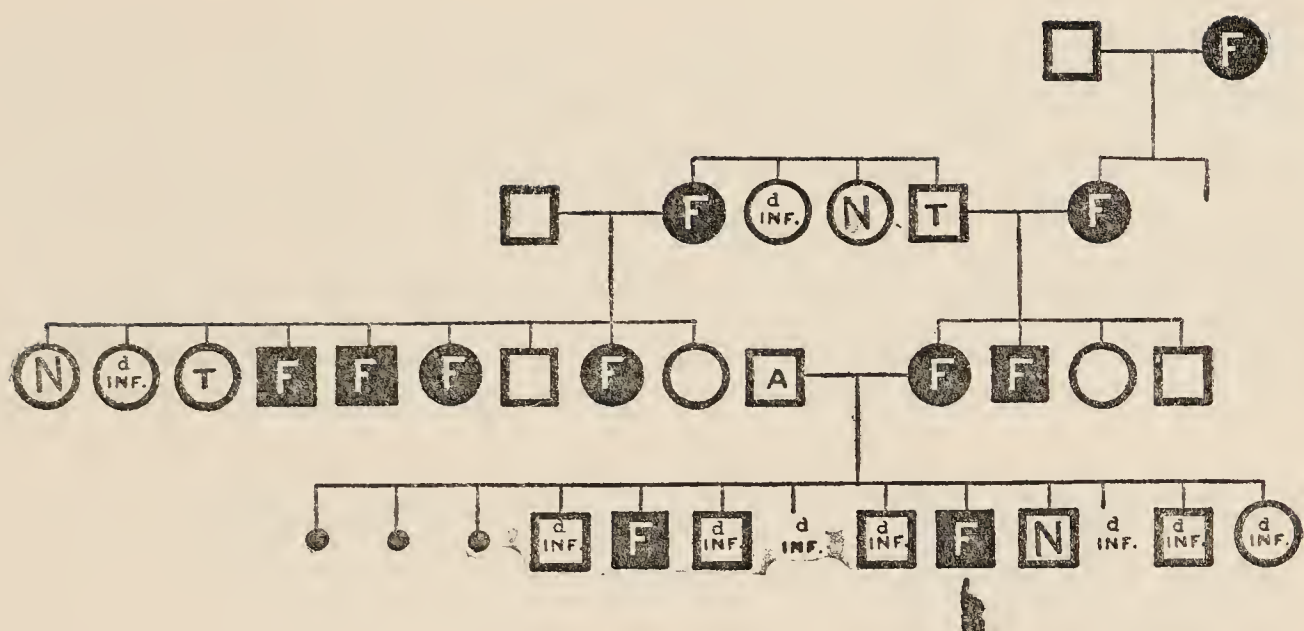


CHART XIV.

Chart XIV is particularly interesting as showing the mental defect running through four generations, and through the mother's family in three of these, although there is defect on the father's side also in the third generation.

Chart XV perhaps adds nothing new for heredity, mainly emphasising the exhibits of the other charts. However, for a social study, it is perhaps the best of anything that we have yet found. Here we have a feeble-minded woman who has had three husbands (including one "who was not her husband"), and the result has been nothing but feeble-minded children. The story may be told as follows :

This woman was a handsome girl, apparently having inherited some refinement from her mother, although her father was a feeble-minded, alcoholic brute. Somewhere about the age of 17 or 18 she went out to do house-work in a family in one of the towns of this State. She soon became the mother of an illegitimate child. It was born in an almshouse to which she fled after she had been discharged from the home where she had been at work. After this, charitably disposed people tried to do what they could for her, giving her a home for herself and her child in return for the work which she could do. However, she soon appeared in the same condition. An effort was then made to discover the father of this second child, and when he was found to be a drunken, feeble-minded epileptic living in the neighbourhood, in order to save the legitimacy of the child, her friends saw to it that a marriage ceremony took place. Later

another feeble-minded child was born to them. Then the whole family¹ secured a home with an unmarried farmer in the neighbourhood. They lived there together until another child was forthcoming which the husband refused to own. When finally the farmer acknowledged this child to be his, the same good friends interfered, went into the courts and procured a divorce

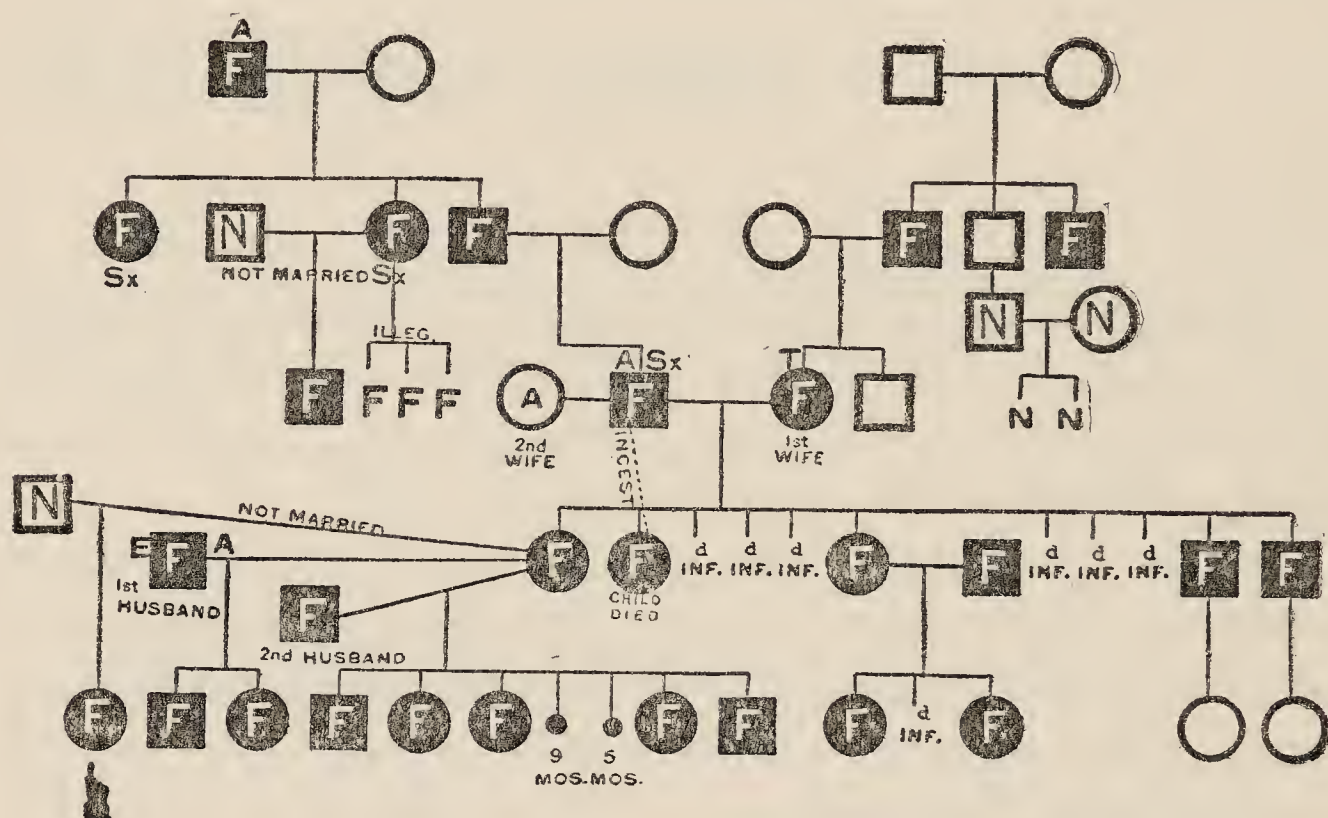


CHART XV.

from the husband, and had the woman married to the father of the expected fourth child. This proved to be feeble-minded, and they have had four other feeble-minded children, making eight in all, born of this woman. There have also been one child still-born and one miscarriage.

As will be seen from the chart, this woman had four feeble-minded brothers and sisters. These are all married and have children. The older of the two sisters had a child by her own father, when she was thirteen years old. The child died at about six years of age. This woman has since married. The two brothers have each at least one child of whose mental condition nothing is known. The other sister married a feeble-minded man and had three children. Two of these are feeble-minded and the other died in infancy. There were six other brothers and sisters that died in infancy.

Such is the bare presentation of a few of our cases already worked up. We have made no attempt to study these points, or to mark them statistically, as such labour will be more worth while when all of our cases are completed.

It should be stated that while Chart XV and Chart VIII are undoubtedly the worst cases we have come across, the others here presented are hardly exceptional. They can be matched by many that we already have on file.¹

We have nearly four hundred children in the institution, and we may reasonably hope to present a fairly complete family history of at least two-thirds of these. If this prediction is verified, it will give us enough data to deduce something of importance concerning human heredity. The work is going on as fast as we can push it. We have now three workers in the field, and will perhaps add a fourth before very long. Later we shall hope to present a full report of all our findings.

¹ Since this was written this family has been further investigated, with the result that we now know the facts concerning 319 members, of whom 119 are feeble-minded with only 42 known to be normal

